```
=> d his

     (FILE 'HOME' ENTERED AT 12:56:08 ON 14 OCT 2005)

     FILE 'HCAPLUS' ENTERED AT 12:56:32 ON 14 OCT 2005
L1            1 US2005026135/PN OR US2003-628110#/AP,PRN

     FILE 'REGISTRY' ENTERED AT 12:57:11 ON 14 OCT 2005

     FILE 'HCAPLUS' ENTERED AT 12:57:14 ON 14 OCT 2005

     FILE 'REGISTRY' ENTERED AT 12:57:14 ON 14 OCT 2005

     FILE 'WPIX' ENTERED AT 12:57:18 ON 14 OCT 2005
L2            1 L1

=> b hcap;d all l1 tot
FILE 'HCAPLUS' ENTERED AT 12:57:44 ON 14 OCT 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)


Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.
The CA Lexicon is the copyrighted intellectual property of the
the American Chemical Society and is provided to assist you in searching
databases on STN.  Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited.

FILE COVERS 1907 - 14 Oct 2005  VOL 143 ISS 17
FILE LAST UPDATED: 13 Oct 2005  (20051013/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


L1   ANSWER 1 OF 1  HCAPLUS  COPYRIGHT 2005 ACS on STN
AN   2005:94953  HCAPLUS
ED   Entered STN:  03 Feb 2005
TI   Method for rapid detection of microorganisms by changing the shape of
     micro colonies
IN   Gazenko,  Sergey
PA   USA
SO   U.S. Pat. Appl. Publ.
     CODEN: USXXCO
DT   Patent
LA   English
IC   ICM  C12Q001-04
INCL 435004000; 435034000
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     ---------------     ----   --------    --------------------    --------
PI   US 2005026135        A1    20050203    US 2003-628110          20030728 <--
PRAI US 2003-628110               20030728  <--
CLASS
 PATENT NO.       CLASS  PATENT FAMILY CLASSIFICATION CODES
 --------------   -----  ----------------------------------------------
 US 20050026135   ICM    C12Q001-04
                  INCL   435004000; 435034000
```

US 2005026135 NCL 435/004.000
ECLA C12Q001/04 <--

AB The time of the detection and enumeration of microorganisms after their growth on solid or liquid nutrient media depends on the visibility of colony or suspension by naked eye or optical instruments. Visibility depends mainly on light absorbance by layer of cells in colony or suspension. The growth of microorganisms in micro channels needs much less amount of cells to reach the same light absorbance as done by regular growth. Smaller amount of cells needs shorter time for their reproduction. Therefore detection and enumeration of cells could be done in several times faster than by previously known growth methods. Also the time of detection and enumeration could be shortened by additional usage of chemical substances or physical factors that increase light absorbance or instill fluorescence. To reach needful light absorbance the volume of one micro channel must be extremely small-only in several thousands times larger than the volume of one cell and longevity of channel must be in several times longer than diameter of a channel.

=> b wpix;d all l2 tot
FILE 'WPIX' ENTERED AT 12:57:48 ON 14 OCT 2005
COPYRIGHT (C) 2005 THE THOMSON CORPORATION

FILE LAST UPDATED: 11 OCT 2005 <20051011/UP>
MOST RECENT DERWENT UPDATE: 200565 <200565/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
PLEASE VISIT:
http://www.stn-international.de/training_center/patents/stn_guide.pdf <<<

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
http://thomsonderwent.com/coverage/latestupdates/ <<<

>>> FOR INFORMATION ON ALL DERWENT WORLD PATENTS INDEX USER
GUIDES, PLEASE VISIT:
http://thomsonderwent.com/support/userguides/ <<<

>>> NEW! FAST-ALERTING ACCESS TO NEWLY-PUBLISHED PATENT
DOCUMENTATION NOW AVAILABLE IN DERWENT WORLD PATENTS INDEX
FIRST VIEW - FILE WPIFV.
FOR FURTHER DETAILS: http://www.thomsonderwent.com/dwpifv <<<

>>> THE CPI AND EPI MANUAL CODES HAVE BEEN REVISED FROM UPDATE 200501.
PLEASE CHECK:
http://thomsonderwent.com/support/dwpiref/reftools/classification/code-revision/
FOR DETAILS. <<<
'BIX BI,ABEX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE

L2 ANSWER 1 OF 1 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2005-161292 [17] WPIX
DNN N2005-135384 DNC C2005-052006
TI Rapid detection of live cells, e.g. bacteria, comprises growing micro colonies in small and thin channels of a device and changing the optical characteristics of light passing through the channels.
DC D16 J04 S03
IN GAZENKO, S
PA (GAZE-I) GAZENKO S
CYC 1
PI US 2005026135 A1 20050203 (200517)* 6 C12Q001-04 <--
ADT US 2005026135 A1 **US 2003-628110 20030728**
PRAI **US 2003-628110 20030728**
IC ICM C12Q001-04
AB US2005026135 A UPAB: 20050311

NOVELTY - Rapidly detecting live cells comprises growing micro colonies in small and thin channels of a device consisting of a micro channel plate, a filter (3) to trap cells and a frame to form long cylindrical micro colonies, and changing optical characteristics of light passing through the channels, where channels containing micro colonies will look different from empty channels optical characteristics.

DETAILED DESCRIPTION - Rapid detection of live cells by detection of micro colonies produced by these cells comprises growing micro colonies in small and thin channels of the device consisting of a micro channel plate, a filter to trap cells and a frame, to form long cylindrical micro colonies, as a result of growth on solid nutrient media (4), to increase their visualization with optical instruments by changing optical characteristics of light passing through the channels, where channels containing micro colonies will look different from empty channels optical characteristics.

USE - For detecting live cells e.g. bacteria, fungi, or actinomycetes.

ADVANTAGE - The new method is effective in reducing the time of analysis and enhancing the sensitivity using the channels of smaller diameter and substances produced color or fluorescent microscope.

DESCRIPTION OF DRAWING(S) - The drawing shows a micro colony, as formed in the new method.

Regular micro colony 1

Micro colony in micro channel 2

Filter 3

Nutrient media 4

Dwg.1/2

FS CPI EPI

FA AB; GI

MC CPI: D05-H04; D05-H05; D05-H09; J04-B01

EPI: S03-E04D; S03-E14H

=> b home

FILE 'HOME' ENTERED AT 12:57:52 ON 14 OCT 2005

=>

```
=> d his full

     (FILE 'HOME' ENTERED AT 12:56:08 ON 14 OCT 2005)

     FILE 'HCAPLUS' ENTERED AT 12:56:32 ON 14 OCT 2005
L1             1 SEA ABB=ON  PLU=ON  US2005026135/PN OR US2003-628110#/AP,PRN

     FILE 'REGISTRY' ENTERED AT 12:57:11 ON 14 OCT 2005

     FILE 'HCAPLUS' ENTERED AT 12:57:14 ON 14 OCT 2005

     FILE 'REGISTRY' ENTERED AT 12:57:14 ON 14 OCT 2005

     FILE 'WPIX' ENTERED AT 12:57:18 ON 14 OCT 2005
L2             1 SEA ABB=ON  PLU=ON  US2005026135/PN OR US2003-628110#/AP,PRN
L3        180959 SEA ABB=ON  PLU=ON  (S03-E14H? OR B11-C08E6 OR C11-C08E6 OR
                 B11-C10? OR C11-C10? OR D05-H09 OR D05-H04 OR D05-H05 OR
                 D05-H06? OR B12-K04 OR B12-K04E OR C12-K04 OR C12-K04E)/MC
L4        193861 SEA ABB=ON  PLU=ON  (N100 OR N102 OR P831 OR R63? OR N105)/MO,M
                 1,M2,M3,M4,M5,M6
L5         60201 SEA ABB=ON  PLU=ON  (G01N033-48# OR G01N033-49# OR G01N033-50#
                 OR G01N033-52 OR G01N033-53)/IPC
L6        248662 SEA ABB=ON  PLU=ON  (L3 OR L4 OR L5)
L7             QUE ABB=ON  PLU=ON  D05-H08/MC OR N13?/M0,M1,M2,M3,M4,M5,M6 OR
                 (C12M003 OR C12N001 OR C12N005)/IPC
L8          3606 SEA ABB=ON  PLU=ON  C12Q001-04/IPC
L9        248979 SEA ABB=ON  PLU=ON  (L6 OR L8)
L10        74610 SEA ABB=ON  PLU=ON  L7 AND L9
                 E GAZENKO S/AU
L11            5 SEA ABB=ON  PLU=ON  ("GAZENKO S"/AU OR "GAZENKO S V"/AU)
                 E GAZENKO S/CS,PA
L12            2 SEA ABB=ON  PLU=ON  ("GAZENKO S"/CS OR "GAZENKO S"/PA)
L13           67 SEA ABB=ON  PLU=ON  GAZE-I/PACO
L14            2 SEA ABB=ON  PLU=ON  L10 AND (L11 OR L12 OR L13)
L15        74608 SEA ABB=ON  PLU=ON  L10 NOT L14
L16          153 SEA ABB=ON  PLU=ON  L15 AND C12M003-06/IPC
L17           35 SEA ABB=ON  PLU=ON  C12M001-34/IPC AND L16
L18           26 SEA ABB=ON  PLU=ON  (1992-017628/AN OR 1993-054530/AN OR
                 1993-111283/AN OR 1995-372689/AN OR 1997-194896/AN OR 1997-1948
                 98/AN OR 1998-146616/AN OR 1998-497186/AN OR 1999-562375/AN OR
                 2000-024577/AN OR 2000-065136/AN OR 2000-072174/AN OR 2000-5874
                 43/AN OR 2000-648896/AN OR 2002-257281/AN OR 2002-509872/AN OR
                 2003-157038/AN OR 2003-279975/AN OR 2003-430345/AN OR 2003-4682
                 33/AN OR 2003-810758/AN OR 2004-063662/AN OR 2004-122222/AN OR
                 2004-410416/AN OR 2004-534319/AN OR 2005-083117/AN) AND L17
L19           16 SEA ABB=ON  PLU=ON  (1992-017628/AN OR 1993-054530/AN OR
                 1998-497186/AN OR 1999-562375/AN OR 2000-065136/AN OR 2000-0721
                 74/AN OR 2002-509872/AN OR 2003-157038/AN OR 2003-279975/AN OR
                 2003-430345/AN OR 2003-468233/AN OR 2003-810758/AN OR 2004-0636
                 62/AN OR 2004-122222/AN OR 2004-534319/AN OR 2005-083117/AN)
                 AND L18
L20            6 SEA ABB=ON  PLU=ON  L19 NOT (PY>2003 OR AY>2003 OR PRY>2003)
L21           16 SEA ABB=ON  PLU=ON  (L19 OR L20)

=> b wpix
FILE 'WPIX' ENTERED AT 13:36:35 ON 14 OCT 2005
COPYRIGHT (C) 2005 THE THOMSON CORPORATION

FILE LAST UPDATED:          11 OCT 2005      <20051011/UP>
MOST RECENT DERWENT UPDATE:     200565        <200565/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
    PLEASE VISIT:
 http://www.stn-international.de/training_center/patents/stn_guide.pdf <<<
```

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
http://thomsonderwent.com/coverage/latestupdates/ <<<

>>> FOR INFORMATION ON ALL DERWENT WORLD PATENTS INDEX USER GUIDES, PLEASE VISIT:
http://thomsonderwent.com/support/userguides/ <<<

>>> NEW! FAST-ALERTING ACCESS TO NEWLY-PUBLISHED PATENT DOCUMENTATION NOW AVAILABLE IN DERWENT WORLD PATENTS INDEX FIRST VIEW - FILE WPIFV.
FOR FURTHER DETAILS: http://www.thomsonderwent.com/dwpifv <<<

>>> THE CPI AND EPI MANUAL CODES HAVE BEEN REVISED FROM UPDATE 200501.
PLEASE CHECK:
http://thomsonderwent.com/support/dwpiref/reftools/classification/code-revision/
FOR DETAILS. <<<
'BIX BI,ABEX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE

=> d all l14 tot

L14 ANSWER 1 OF 2 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2000-687642 [67] WPIX
DNN N2000-508372 DNC C2000-209382
TI Device for grinding food sample to extract DNA, RNA, or proteins, has rotatable pestles carried on a block above a tray moving between working and retracted positions.
DC B04 D16 S03
IN GAZEAU, M; LAZAR, V
PA (GENO-N) GENOMIC SA; (**GAZE-I**) GAZEAU M
CYC 93
PI WO 2000068358 A1 20001116 (200067)* FR 17 C12M001-33
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
FR 2793260 A1 20001110 (200067) C12N015-10
FR 2793261 A1 20001110 (200067) C12N015-10
AU 2000044141 A 20001121 (200112) C12M001-33
EP 1177276 A1 20020206 (200218) FR C12M001-33
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
US 2002066812 A1 20020606 (200241) B02C019-12
US 6695236 B2 20040224 (200415) B02C019-12
EP 1177276 B1 20041013 (200467) FR C12M001-33
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
DE 60014886 E 20041118 (200476) C12M001-33
ADT WO 2000068358 A1 WO 2000-FR1230 20000505; FR 2793260 A1 FR 1999-5795 19990505; FR 2793261 A1 FR 1999-10040 19990802; AU 2000044141 A AU 2000-44141 20000505; EP 1177276 A1 EP 2000-925408 20000505, WO 2000-FR1230 20000505; US 2002066812 A1 Cont of WO 2000-FR1230 20000505, US 2001-7043 20011105; US 6695236 B2 Cont of WO 2000-FR1230 20000505, US 2001-7043 20011105; EP 1177276 B1 EP 2000-925408 20000505, WO 2000-FR1230 20000505; DE 60014886 E DE 2000-00014886 20000505, EP 2000-925408 20000505, WO 2000-FR1230 20000505
FDT AU 2000044141 A Based on WO 2000068358; EP 1177276 A1 Based on WO 2000068358; EP 1177276 B1 Based on WO 2000068358; DE 60014886 E Based on EP 1177276, Based on WO 2000068358
PRAI FR 1999-10040 19990802; FR 1999-5795 19990505
IC ICM B02C019-12; C12M001-33; C12N015-10
ICS B01J019-00; C12M001-16; **C12M003-08**; C12P019-34; G01N001-28
AB WO 200068358 A UPAB: 20001223
NOVELTY - A device for grinding a biological sample comprising rotatable pestles each having a liquid supply conduit, is new. The pestles are carried on a block above a tray that moves between a working position

adjacent to the pestles and a retracted position.
USE - For extracting RNA, DNA, or protein from samples of food.
DESCRIPTION OF DRAWING(S) - The drawing shows a food sample grinding device.
Pestle carriers 1
Conduits 2,7
Shaft 3
Lower tray 5
Pipes 6.
Dwg.1/3
FS CPI EPI
FA AB; GI; DCN
MC CPI: B04-E01; B04-N04; B11-C08; D05-H13
EPI: S03-E13D

L14 ANSWER 2 OF 2 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 1991-020477 [03] WPIX
DNC C1991-008858
TI Controlling cultivation of microorganisms - uses specified tetrazolium salts as specific substrates, and dehydrogenase activities as indicators.
DC D16 E13
IN **GAZENKO, S V**; KOROLEV, N I
PA (BIOL-R) BIOLOG INSTRM RES
CYC 1
PI SU 1564193 A 19900515 (199103)*
ADT SU 1564193 A SU 1988-4453230 19880701
PRAI SU 1988-4453230 19880701
IC **C12Q001-04**
AB SU 1564193 A UPAB: 19930928
Cultivation of microorganisms is controlled more efficiently as follows. Tetrazolium salts, namely tetranitrosinium tetrazolium chloride, m-nitroneotetrazolium violet, tetrazolium violet, tetrazolium blue, 4-nitroblue tetrazolium chloride, neotetrazolium chloride, tetrazolium violet bromide and methylthiazolyl tetrazolium bromide, are used as the substrates. The sample is divided into relevant number of portions a substrate added to each portion and dehydrogenase activities determined and used as the indicators of the taxonomic position of the particular microorganism.
USE/ADVANTAGE - In biotechnology and food industry. Quicker, more reliable method. Bul. 18/15.5.90
0/0
FS CPI
FA AB; DCN
MC CPI: D03-K03; D03-K04; **D05-H04**; **D05-H05**; **D05-H06**; E07-D13C; E07-F01

=> d all abeq abex tech l21 tot

L21 ANSWER 1 OF 16 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2005-083117** [10] WPIX
DNN N2005-072919 DNC C2005-028977
TI Making expansive sensor evaluating analyte concentrations, employs multi-micro-tubular monolithic sheaf in multi-tangential disposition to form reaction area.
DC B04 D16 J04 S03
IN BASSET, F; BILLIOTTE, J M; NIKITIN, P I; BILLIOTTE, J
PA (BASS-I) BASSET F; (BILL-I) BILLIOTTE J M; (NIKI-I) NIKITIN P I; (MAGN-N) MAGNISENSE LTD
CYC 108
PI FR 2857099 A1 20050107 (200510)* 76 G01N035-00
WO 2005011866 A1 20050210 (200512) FR B01L003-00
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG

KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ
OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG
US UZ VC VN YU ZA ZM ZW

ADT FR 2857099 A1 FR 2003-8227 20030704; WO 2005011866 A1 WO 2004-FR1707 20040701

PRAI FR 2003-8227 20030704

IC ICM B01L003-00; G01N035-00
ICS **C12M001-34**; **C12M003-06**; G01N033-543

AB FR 2857099 A UPAB: 20050211
NOVELTY - The apparatus employed receives a fluid sample (F) in a test volume (Vep) where a reaction area (Sev) in a reaction chamber (Cre) is formed by a multi-micro-tubular monolithic sheaf in a multi-tangential disposition (c1, c2, ck, cn).

DETAILED DESCRIPTION - The tubular microchannels (Ck) number about 300,000. They have any geometric cross section and are about 10 mu m across. An integral, lateral expansion transducer (T) measures the expansive state (E) of the bundle. The integral measurement is Delta E = approx. Sk=1...n approx. Sij (dE)ijk, i.e. a summation expressing the overall total of lateral displacements corresponding with the formation of complexes as a result of analyte (ai) to receptor (rj) bonding. The method and practical implementations of the apparatus are further detailed.

INDEPENDENT CLAIMS are included for the corresponding sensor and a test cartridge.

USE - The method is useful for making a sensor evaluating analyte concentrations. The analytes are soluble chemicals, or alternatively micro-organisms alive or dead, in a fluid sample.

ADVANTAGE - Conventional measurement processes are improved. The measurement produced is integral, i.e. a summation of measurements from each of the microtubes. A global quantification is made of the analyte components in the sample fluid. This covers the fluid in all the micro-tubular channels and the reaction chamber simultaneously.

DESCRIPTION OF DRAWING(S) - A schematic view of the apparatus with inset details is presented.

Sheaf of micro-tubes in multi-tangential disposition c1 , c2 , ck , cn

Tubular microchannels Ck

Reaction chamber Cre

Expansive state E

Fluid sample F

Reaction area Sev

Integral, lateral expansion transducer T

Test volume Vep

Dwg.1/23

FS CPI EPI

FA AB; GI

MC CPI: B11-C08B; B12-K04A; **B12-K04E**; **D05-H09**; J04-B01
EPI: **S03-E14H4**

L21 ANSWER 2 OF 16 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN **2004-534319** [51] WPIX

DNC C2004-196600

TI Laboratory sample process device for e.g. sample preparation comprises surface including multiple spatially discrete regions each comprising at least one utilitarian discontinuity.

DC B04 D16 J04

IN CLARK, P; COLMAN, M S; SCOTT, C A

PA (CLAR-I) CLARK P; (COLM-I) COLMAN M S; (SCOT-I) SCOTT C A; (MIFI) MILLIPORE CORP

CYC 107

PI WO 2004060534 A1 20040722 (200451)* EN 22 B01D036-02
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC

VN YU ZA ZM ZW
US 2004182770 A1 20040923 (200463) B01D063-00
AU 2003291198 A1 20040729 (200477) B01D036-02
EP 1572319 A1 20050914 (200560) EN B01D036-02
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

ADT WO 2004060534 A1 WO 2003-US38045 20031202; US 2004182770 A1 Provisional US 2002-434570P 20021218, US 2003-726240 20031202; AU 2003291198 A1 AU 2003-291198 20031202; EP 1572319 A1 EP 2003-783793 20031202, WO 2003-US38045 20031202

FDT AU 2003291198 A1 Based on WO 2004060534; EP 1572319 A1 Based on WO 2004060534

PRAI US 2002-434570P 20021218; US 2003-726240 20031202

IC ICM B01D036-02; B01D063-00
ICS B01L011-00; **C12M001-34**; **C12M003-06**

AB WO2004060534 A UPAB: 20040810
NOVELTY - A laboratory sample process device comprises a surface including multiple spatially discrete regions. Each region comprises at least one utilitarian discontinuity. A utilitarian discontinuity in one of the regions has a functionality different from a utilitarian discontinuity in another of the regions.
USE - For sample preparation, e.g. sample concentration, desalting or purification, and for enzyme-linked immuno-spot (ELISPOT) assays.
ADVANTAGE - The device is a multiwell plate or tray that has a modular design and that meets Society for Biomolecular Screening (SBS) dimensional guidelines. It is automation-compatible.
DESCRIPTION OF DRAWING(S) - The figure shows a laboratory device of the invention.
Dwg.3/7

FS CPI
FA AB; GI
MC CPI: B11-C07A4; B11-C08C; B11-C08D3; **D05-H09**; D05-H10; D05-H13; J04-B01

TECH UPTX: 20040810
TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Components: Each discrete region is arranged in a row. At least one of the utilitarian discontinuities is a well having filtration as its functionality and including a membrane. The membrane is an ultrafiltration membrane. A base supports the multiple spatially discrete regions. At least one of the discrete regions is removable from the base. The discrete regions are in sealing relationship with the base. The discrete regions comprise a support structure to position removable vessels. At least one of the discrete regions comprises sub-regions defined by utilitarian discontinuities. At least one of the discontinuities in the sub-region has a functionality different from another of the discontinuities in the sub-region. The discrete regions may be arranged in a column. Each discrete region is arranged to include sub-regions having discontinuities with different functionality from other discontinuities within the discrete region.

L21 ANSWER 3 OF 16 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2004-122222** [12] WPIX
DNN N2004-097905 DNC C2004-048941
TI Determining microbial concentration in liquid sample by passing the liquid sample through apparatus comprising a housing and a membrane filter, introducing reagent composition and measuring radiant energy from housing.
DC D13 D16 D21 J04 S03
IN PEASE, C
PA (PEAS-I) PEASE C; (MIFI) MILLIPORE CORP
CYC 104
PI WO 2003104383 A1 20031218 (200412)* EN 18 C12M001-34 <--
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL

PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

US 2004009473 A1 20040115 (200412) C12Q001-70
AU 2003274412 A1 20031222 (200445) C12M001-34 <--
EP 1511836 A1 20050309 (200518) EN C12M001-34 <--
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

ADT WO 2003104383 A1 WO 2003-US17990 20030609; US 2004009473 A1 Provisional US 2002-387253P 20020607, US 2003-457631 20030609; AU 2003274412 A1 AU 2003-274412 20030609; EP 1511836 A1 EP 2003-741891 20030609, WO 2003-US17990 20030609

FDT AU 2003274412 A1 Based on WO 2003104383; EP 1511836 A1 Based on WO 2003104383

PRAI US 2002-387253P 20020607; US 2003-457631 20030609

IC ICM **C12M001-34**; C12Q001-70
ICS C12M001-12; **C12M003-06**; **C12Q001-04**; C12Q001-66; C12Q001-68

AB WO2003104383 A UPAB: 20040218
NOVELTY - Determining (M1) microbial concentration (I) in a liquid involves passing liquid sample through an apparatus (II) which comprises housing, unit for supporting a membrane filter, a membrane filter, transparent top surface and unit for sealing the housing, introducing a reagent composition (III), sealing the housing from the atmosphere, and measuring radiant energy from the housing.

DETAILED DESCRIPTION - Determining (M1) microbial concentration (I) in a liquid involves:

(a) passing liquid sample through an apparatus (II) which comprises housing that has an inlet and outlet, unit for supporting a membrane filter positioned between the inlet and the outlet, a membrane filter mounted to the unit for supporting a membrane filter, transparent top surface, and unit for sealing the housing from surrounding atmosphere and to isolate microbes in the liquid sample on the membrane filter;

(b) introducing a reagent composition (III) comprising a first reactant for lysing microbial cells and second reactant for reacting with lysed cells to produce radiant energy;

(c) sealing the housing containing first reactant and second reactant from the atmosphere; and

(d) measuring radiant energy from the housing.

An INDEPENDENT CLAIM is also included for a kit (IV) for use on site to rapidly determine (I) in a liquid sample in conjunction with a radiant energy detector which comprises (II) suitable for continuous filtration of large sample volume under pressure, a container for housing (III) and a portable apparatus to detect and measure the radiant energy including the measurement of time from which the filter apparatus is exposed to the reagents, the total reaction time, as well as means to express the radiant energy compared to pre-set acceptable values, and protecting the filtration device from reading contamination by environmental radiation during reading.

USE - (M1) is useful for determining microbial concentration in a liquid sample and for testing material processing apparatus such as food processing apparatus for microbial contact prior to process the material through the apparatus.

ADVANTAGE - (M1) enables determination of microbial concentration in a liquid sample.

DESCRIPTION OF DRAWING(S) - The figure shows the elevational view of a device useful for determining concentration of microbes.

Device 1
Intake unit 2
Drainage unit 3
Reservoir 5
Skirt 6
Conduit 10
Dwg.1/8

FS CPI EPI
FA AB; GI
MC CPI: **D05-H04**; **D05-H08**; **D05-H09**; D05-H13;

J04-C02
EPI: **S03-E14H**
TECH UPTX: 20040218
TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Method: (M1) further involves eliminating any cells other than the microbial cells before lysing the microbial cells by selectively lysing all cells other than the microbial cells, degrading their contents by enzymes and washing the filter to remove the degraded contents.
Preferred Kit: (IV) includes two containers for housing the first reactant and the second reactant. The filter is supported on a porous pad and the housing includes drainage channels under the porous pad, drainage channels opening into the outlet. The first reactant is chosen from the group consisting of detergents, alcohols, esters, ethers, halogenated derivatives of methane, ethane, methylene and ethylene, acetonitrile, trimethylamine and it's mixtures and the second reactant is chosen from the group consisting of luciferine, luciferase, radioactive tags and one or more PNA tags, preferably the first reactant is chosen from the group consisting of detergent, methanol and ethanol, and the second reactant is luciferine, luciferase, or one or more peptide nucleic acid (PNA) tags. The filter is of about the same size and configuration as the active detection surface of the sensor. The apparatus has a low level of fluorescence and a material that is capable of reacting with the second reagent.

L21 ANSWER 4 OF 16 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2004-063662** [07] WPIX
DNC C2004-026159
TI Multi-chamber laboratory incubation and filtration sample holder for filtration and incubation of bacterial samples with filter over frits.
DC D16
IN GERMER, C; SPAHIC, S
PA (GERM-I) GERMER C; (SPAH-I) SPAHIC S
CYC 1
PI DE 10223884 A1 20031218 (200407)* 8 C12M003-06 <--
DE 10223884 B4 20040603 (200436) C12M003-06 <--
ADT DE 10223884 A1 DE 2002-10223884 20020529; DE 10223884 B4 DE 2002-10223884 20020529
PRAI DE 2002-10223884 20020529
IC ICM **C12M003-06**
ICS C12M001-12; **C12M001-34**
AB DE 10223884 A UPAB: 20040128
NOVELTY - A laboratory incubation and filtration assembly has a number of microbiological sample holders for simultaneous use. The assembly especially has a number of sample filtration and incubation holder sockets (1) located over filters whose bases rest on frits. The filter adapter has a press-fit O-ring seal for the cover.

DETAILED DESCRIPTION - The assembly has 15 compact filtration and incubation chambers which can be used individually, as a whole, or in part. The chambers may be fitted with variable filter adapters. The number of chambers used for filtration or incubation is freely chosen. The chambers may be enlarged by screw-fit top-mounted extensions.

USE - Multi-chamber laboratory incubation and filtration sample holders. Applications include e.g. sample preparation, extraction of bacteria from a sample, fixing bacteria, dessicating bacteria with alcohols, application of fluorescent agent to bacteria and filtration for microscopic examination.

ADVANTAGE - The assembly is capable of accepting four samples for simultaneous testing using different but related test methods in which the sample is suspended in a solution. Further claimed is that, following the process in question, the samples may be immediately or directly stained, incubated, rinsed, re-suspended. All the necessary process stages can be undertaken within the same assembly. Further claimed is that assembly is compact and may be used in standard incubation cabinets.

DESCRIPTION OF DRAWING(S) - The drawing is an isometric view of the incubator upper section with filtration and incubation chambers, part cut away to reveal a chamber.

Incubation and filtration chamber 1
thread 2
screw fixture hole 3
Dwg.1/7
FS CPI
FA AB; GI
MC CPI: D05-A03; **D05-H09**

L21 ANSWER 5 OF 16 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2003-810758** [76] WPIX
DNC C2003-225126
TI Cell and tissue culture modeling device useful for gene expression studies, comprises housing, an inlet and outlet port, several hollow fibers having intracapillary, and extracapillary space unoccupied by fibers.
DC A89 B04 D16
IN JANIGRO, D; MCALLISTER, M S
PA (JANI-I) JANIGRO D; (MCAL-I) MCALLISTER M S; (CLEV-N) CLEVELAND CLINIC FOUND
CYC 100
PI US 2003054545 A1 20030320 (200376)* 21 C12M001-12
WO 2003025206 A1 20030327 (200376) EN C12Q001-02
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW
US 6667172 B2 20031223 (200408) C12M001-34 <--
AU 2002341734 A1 20030401 (200452) C12Q001-02
ADT US 2003054545 A1 US 2001-957063 20010919; WO 2003025206 A1 WO 2002-US29784 20020919; US 6667172 B2 US 2001-957063 20010919; AU 2002341734 A1 AU 2002-341734 20020919
FDT AU 2002341734 A1 Based on WO 2003025206
PRAI US 2001-957063 20010919
IC ICM C12M001-12; **C12M001-34**; C12Q001-02
ICS **C12M003-06**
AB US2003054545 A UPAB: 20031125
NOVELTY - Cell and tissue culture modeling device comprising a housing with an interior chamber, an inlet and outlet port in fluid communication with the chamber, several hollow fibers disposed within the chamber and traversing the length of the housing between the ports, the hollow fibers having an interior defining an intracapillary space, is new. The interior chamber defines an extracapillary space unoccupied by fibers.

DETAILED DESCRIPTION - A cell and tissue culture modeling device (10) (I) has a housing (15) having an interior chamber (57), an inlet port (20) and outlet port (25) in fluid communication with the internal chamber, several hollow fibers disposed within the interior chamber and traversing the length of the housing between the inlet port and the outlet port, each group of hollow fibers having an interior defining an intracapillary space, is new. The interior chamber defines an extracapillary space (67) unoccupied by several hollow fibers. At least a portion of the housing is removable to access the extracapillary space.

An INDEPENDENT CLAIM is also included for a cell and tissue culturing modeling apparatus (II) having at least one cell tissue culture modeling device including a housing having an interior chamber defining an extracapillary space, where at least a portion of the housing is removable to access the extracapillary space, an inlet port and outlet port in fluid communication with the internal chamber, with several hollow fibers disposed within the interior chamber and traversing the length of the housing between the inlet port and the outlet port. Each group of hollow fibers has an interior. The interior is defined as an intracapillary space, a pump system, a media reservoir, a first conduit interconnecting the media reservoir to the pump system, a second conduit interconnecting the pump system to the inlet port of the at least one device, and a third

conduit interconnecting the outlet port of the at least one device to the media reservoir.

USE - (I) is useful for determining (M1) the permeability of an agent across a capillary wall which involves providing a cell culture model having several capillaries disposed within an interior chamber which defines an extracapillary space unoccupied by several capillaries, each of the capillaries including several pores that provide fluid communication between an intracapillary space and the extracapillary space, passing an agent having a known concentration through several intracapillary spaces, sampling the extracapillary space to provide an extracapillary space sample, and analyzing the extracapillary space sample to determine the permeability of the agent across each of the capillary walls. Several intracapillary spaces are inoculated with endothelial cells. The extracapillary space is inoculated with glial cells. The sampling step is accomplished by a microdialysis-driven sample probe. (M1) further comprises a second cell culture modeling device to allow for the simultaneous determination of permeability values of at least two agents in a single experiment. (I) is useful for determining (M2) the efficacy of a drug which involves providing a model that exhibits the properties of a functional blood brain barrier (BBB), the model having several intracapillary spaces and an extracapillary space accessible by an access panel, placing a tissue sample into the extracapillary space, passing an agent through the several intracapillary spaces, and analyzing the tissue sample for responsiveness to the agent. The tissue sample is a cancerous tissue sample, preferably, a brain tissue sample. The agent is a chemotherapeutic agent. (M2) further involves placing a neurochip in the extracapillary space before placing the brain tissue sample into the extracapillary space, the neurochip is capable of studying the electrophysiological activity of the brain tissue sample. The brain tissue sample is placed onto the surface of the neurochip. The brain tissue sample is an epileptic brain tissue sample. The agent is an anticonvulsant agent. Determining the efficacy of a drug further involves examining the tissue sample in the extracapillary space with a microscope. (I) is useful for determining (M3) gene expression over time in cells which involves providing a cell culture model having several hollow fibers disposed within an interior chamber which defines an extracapillary space unoccupied by several hollow fibers, each several hollow fibers includes an intracapillary space inoculated with a cell suspension, passing an agent through several intracapillary spaces, sampling at least one several intracapillary spaces by removing at least one several hollow fibers over time, removing cellular material from at least one several hollow fibers, and analyzing the gene expression of the cellular material. The cellular material is chosen from RNA, DNA, metabolites and protein. (All claimed.) (I) is useful as clinically predictive tool for the efficacy of chemotherapeutic agents in the treatment of primary central nervous system malignancy. (I) is useful for stimulating the blood brain barrier in in vitro, to conduct a permeability study, for conducting gene expression studies and to determine the efficacy of a drug.

ADVANTAGE - The relative flatness of the device makes it modular and thus automation of simultaneous permeability determinations of compounds and multiplexing is possible.

DESCRIPTION OF DRAWING(S) - The drawing shows a side exploded view of a cell and tissue culture modeling device.

Cell and tissue culture modeling device 10
Housing 15
Internal chamber 57
Bottom panel 95
First end wall 30
Opposing second end wall 35
First side wall 40
Opposing second side wall 45
First and second end walls 30,35
First and second side walls 40,45
Inlet port 20
Extracapillary space 67
Outlet port 25

Access ports 50
Top panel. 55
Dwg.1/10
FS CPI
FA AB; GI; DCN
MC CPI: A12-L04B; B04-C02A1; B04-C02A3; B04-C03; B04-F01; B11-C08E1; **B12-K04E**; D05-H02; **D05-H08**
TECH UPTX: 20031125
TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Device: The hollow fibers have a wall that includes several pores that provide fluid communication between the intracapillary space and the extracapillary space. The size of each several pores is between 0.01-0.50 microm. The hollow fibers are formed of a material chosen from polypropylene, polyester, polystyrene, polycarbonate, nitrocellulose compound, polyethylene, polysolfone, cellulose, polymethyl methacrylate, polyacrylonitrile, and polyvinylidene fluoride. The hollow fibers are suspended and fixed in the inlet port and outlet port using an epoxy adhesive to create a watertight extracapillary space. The housing includes a pair of opposing end walls and a pair of opposing side walls, at least one of the pair of opposing side walls, which includes at least one access port in fluid communication with the extracapillary space. The inlet port is located in one of the pair of opposing end walls and the outlet port is located in the other of the pair of opposing end walls. The housing includes a top wall and a bottom wall that are flat and parallel. At least a portion of the bottom wall defines a bottom panel (95) that is made of laboratory quality glass. At least a portion of the top wall defines a top panel (55). The top panel is the portion of the housing that is removable to access the extracapillary space. The top panel is removably attached to the housing. (I) further comprises a gasket installed in between the top panel and the housing to create a watertight extracapillary space, where the top panel is made of polished acrylic. (I) further comprises a neurochip installed in the extracapillary space.
Preferred Apparatus: The pump system is a variable speed pump system that generates pulsatile flow. The second conduit is in fluid communication with the intracapillary spaces of several hollow fibers in the inlet port. The third conduit is in fluid communication with the intracapillary spaces of several hollow fibers in the outlet port. The first, second and third conduits are gas permeable tubings. (I) further comprises a first valve positioned between the pump system and the media reservoir to ensure unidirectional flow, and a second valve positioned between the pump system and the at least one device to ensure unidirectional flow. At least one intracapillary space of several hollow fibers is inoculated with a first cell suspension including endothelial cells. The extracapillary space is inoculated with a second cell suspension. The second cell suspension includes a glial cells (e.g. astrocytes).

L21 ANSWER 6 OF 16 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2003-468233** [44] WPIX
DNN N2003-372689 DNC C2003-124822
TI Micro bioreactor comprising a 2-part housing with a vessel-shaped recess in the lower section to form a reaction chamber when the upper part is swung closed with a projection to fit into the recess.
DC B04 C07 D16 S03
IN BECK, C; WAGNER, E
PA (BECK-I) BECK C; (WAGN-I) WAGNER E
CYC 101
PI WO 2003033642 A2 20030424 (200344)* GE 17 C12M003-04 <--
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW
DE 10150269 A1 20030626 (200350) C12M001-34 <--
DE 10150269 B4 20040219 (200413) C12M001-34 <--

EP 1434851 A2 20040707 (200444) GE C12M003-00 <--
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR
AU 2002337150 A1 20030428 (200461) C12M003-04 <--

ADT WO 2003033642 A2 WO 2002-EP11346 20021010; DE 10150269 A1 DE 2001-10150269 20011011; DE 10150269 B4 DE 2001-10150269 20011011; EP 1434851 A2 EP 2002-772369 20021010, WO 2002-EP11346 20021010; AU 2002337150 A1 AU 2002-337150 20021010

FDT EP 1434851 A2 Based on WO 2003033642; AU 2002337150 A1 Based on WO 2003033642

PRAI DE 2001-10150269 20011011

IC ICM **C12M001-34**; **C12M003-00**; **C12M003-04**
ICS **C12M003-06**; G02B021-34

AB WO2003033642 A UPAB: 20030710
NOVELTY - A

microchamber, as a reaction chamber for the non-invasive measurement or cultivation and/or manipulation of biological materials, comprising a housing composed of a hinged (8) upper (1) and a lower (2) section, is new.

DETAILED DESCRIPTION - A microchamber, as a reaction chamber for the non-invasive measurement or cultivation and/or manipulation of biological materials, comprising a housing composed of a hinged (8) upper (1) and a lower (2) section. A recess (4) is in the lower section in the shape of a vessel. The upper section has a structured projection (3) with at least one feed channel (6) and evacuation channel (7) for gas or fluids. The upper section has a swing flap movement, for its projection to fit into the lower recess and form a covered chamber (5). A lock system (9, 10) holds the upper section in the closed position at the lower part. The material is at least partially transparent, to allow observation of activity through a microscope or spectroscope.

USE - The bioreactor is for the study of metabolic processes or toxicological studies e.g. from air or water samples. It is used as a perfusion chamber for the study and manipulation of samples in miniaturized volumes e.g. bacteria, algae, human/animal/vegetable cells and tissue and small organisms. The cover can be a biochip to carry sections of tissue, brain, antibodies, DNA, RNA, antigens, molecules of various dimensions and chemical compositions.

ADVANTAGE - The chamber structure gives a variable volume, to take the biological material in a number of different positions.

DESCRIPTION OF DRAWING(S) - The drawing shows the bioreactor in the open position.

Upper housing section 1
Lower housing section 2
Upper projection 3
Vessel-shaped recess 4
Chamber 5
Gas/fluid feed channel 6
Gas/fluid evacuation channel 7
Hinge 8
Cover lock 9,10
Dwg.1/4

FS CPI EPI
FA AB; GI; DCN
MC CPI: B04-B04C; B04-E01; B04-F01; B04-G01; B11-C07A; B11-C08E; B11-C08F2; **B12-K04E**; C04-B04C; C04-E01; C04-F01; C04-G01; C11-C07A; C11-C08E; C11-C08F2; **C12-K04E**; **D05-H04**; **D05-H05**; **D05-H06**; **D05-H08**; **D05-H09**; D05-H10; D05-H11; D05-H12
EPI: **S03-E14H**; S03-E15

TECH UPTX: 20030710
TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Material: The seals can be of silicon or Teflon (RTM) (polytetrafluoroethylene).

L21 ANSWER 7 OF 16 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2003-430345** [40] WPIX
DNN N2003-343557 DNC C2003-113773

TI Microbiological examination device for sample of liquid under pressure, has second seal with arched profile, external annular end and internal annular end connected to elastomer seal.
DC B04 D16 S03
IN CLAUSS, C; MULLER, G; REYNES, F; SCHANN, C
PA (MIFI) MILLIPORE CORP; (MIFI) MILLIPORE SAS; (CLAU-I) CLAUSS C; (MULL-I) MULLER G; (REYN-I) REYNES F; (SCHA-I) SCHANN C
CYC 26
PI WO 2003033641 A1 20030424 (200340)* EN 25 C12M001-12
RW: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR
W: JP US
FR 2830872 A1 20030418 (200340) C12M001-12
EP 1442111 A1 20040804 (200451) EN C12M001-12
R: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR
US 2004241785 A1 20041202 (200481) C12Q001-04 <--
JP 2005505297 W 20050224 (200516) 40 C12M001-12
ADT WO 2003033641 A1 WO 2002-EP11336 20021009; FR 2830872 A1 FR 2001-13185 20011012; EP 1442111 A1 EP 2002-782877 20021009, WO 2002-EP11336 20021009; US 2004241785 A1 WO 2002-EP11336 20021009, US 2004-491059 20040329; JP 2005505297 W WO 2002-EP11336 20021009, JP 2003-536371 20021009
FDT EP 1442111 A1 Based on WO 2003033641; JP 2005505297 W Based on WO 2003033641
PRAI FR 2001-13185 20011012
IC ICM C12M001-12; **C12Q001-04**
ICS C12M001-28; **C12M001-34**; **C12M003-06**; C12Q001-02
AB WO2003033641 A UPAB: 20030624
NOVELTY - A microbiological examination device for a sample of liquid under pressure, has a second seal having an arched profile, an external annular end and an internal annular end. The external end bears against an annular transverse wall radially beyond a filtering membrane. The internal end is connected to an elastomer seal as a first seal.

DETAILED DESCRIPTION - A microbiological examination device for a sample of liquid under pressure, comprises an intake body (2) having a reservoir; a filtering membrane (4) that closes the reservoir (5); and a drainage body (3). A liquid input aperture is made in one wall of the reservoir. The drainage body has a membrane-support mechanism for supporting the membrane on an opposite side from the reservoir; and a liquid output aperture (38). The intake and drainage bodies have mutual locking mechanisms (7, 31). The membrane is gripped annularly at a periphery between an annular transverse wall (32) of the drainage body around the membrane-support mechanism and a lateral wall (9) of the reservoir. The lateral wall has an elastomer seal (13) that forms an edge of the wall. The wall comes into contact with the membrane. The device is provided with a second seal (55) having an arched profile, an external annular end and an internal annular end. The external end bears against the annular transverse wall radially beyond the membrane. The internal end is connected to the elastomer seal as a first seal.

USE - For the microbiological examination of a sample of liquid under pressure.

ADVANTAGE - The inventive device has improved performance with regard to reliability and convenience of use.

DESCRIPTION OF DRAWING(S) - The figure is a sectional elevational view of a microbiological examination device.

Intake body 2
Drainage body 3
Filtering membrane 4
Reservoir 5
Skirt 6
Mutual locking mechanisms 7, 31
Lateral wall 9
Elastomer seal 13
Annular transverse wall 32
Liquid output aperture 38
Rib 40, 50

Cushion 51
Second seal 55
Dwg.2/8
FS CPI EPI
FA AB; GI; DCN
MC CPI: B04-C03; B11-C08; **B12-K04; D05-H09**
EPI: **S03-E14H**
TECH UPTX: 20030624
TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Component: The second seal has a first cylindrical wall; a frustoconical wall; and a second cylindrical wall. The first cylindrical wall has a first end forming the internal end that is connected to the first seal, and an internal surface opposite a rigid part of the lateral wall. An internal end of the frustoconical wall is connected to the second end of the first cylindrical wall. The second cylindrical wall has a first end connected to the frustoconical wall, and a second end forming the external end of the second seal. The intake body has a frustoconical wall whose small-diameter end is connected to the lateral wall. The internal surface of the first cylindrical wall of the second seal has the same conformation as the external surface of the lateral wall between the first seal and the frustoconical wall of the intake body. The external surface of the frustoconical wall of the second seal has the same inclination as the internal surface of the frustoconical wall of the intake body. The small diameter of the external surface of the frustoconical wall of the second seal corresponds to the small diameter of the internal surface of the frustoconical wall of the intake body, while the large diameter of the external surface of the frustoconical wall of the second seal is slightly smaller than the large diameter of the internal surface of the frustoconical wall of the intake body.
The frustoconical wall of the intake body forms part of a skirt (6) carrying the locking mechanism with which the intake body is provided. The second cylindrical wall has, on the internal side, from the external annular end, a bevel. The second end of the cylindrical wall of the second seal is at the same level as the internal end of the second joint. A groove is provided at the end of the rigid part of the lateral wall while the first seal has a T-shaped profile whose longitudinal leg forms a rib (40, 50) inserted in the groove and whose transverse leg forms a cushion (51) in contact with the membrane. The bevel exists between the rib and the cushion on the external side, while on the internal side the rib and the cushion are connected by a straight surface. The first and second seals are formed through a sealing ring molded in a single piece. The first seal comes into contact with the membrane through a screen ring held on the first seal. The internal diameter of the screen ring corresponds to the internal diameter of the cushion. The external diameter of the screen ring corresponds to the internal diameter of the cylindrical wall situated on the external side of the second seal.

TECHNOLOGY FOCUS - POLYMERS - Preferred Material: The screen ring is made from a very thin film of polypropylene.

L21 ANSWER 8 OF 16 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2003-279975** [28] WPIX
DNN N2003-222172 DNC C2003-073497
TI Cell culture chamber, for a closed culture system, has glass panes flanking the chamber for illumination and observation, with channels at the membrane plate for the feeds of nutrient and gassing and sensor connections.
DC B04 D16 S03 T01
IN SCHERZE, W; SEIDL, J
PA (PANB-N) PAN BIOTECH GMBH
CYC 25
PI DE 10128809 A1 20021219 (200328)* 9 C12M001-34 <--
WO 2004033617 A1 20040422 (200428)# GE C12M003-06 <--
RW: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR
W: US

EP 1539925 A1 20050615 (200539)# GE C12M003-06 <--
R: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR
ADT DE 10128809 A1 DE 2001-10128809 20010618; WO 2004033617 A1 WO 2002-EP10359 20020916; EP 1539925 A1 EP 2002-807963 20020916, WO 2002-EP10359 20020916
FDT EP 1539925 A1 Based on WO 2004033617
PRAI DE 2001-10128809 20010618; WO 2002-EP10359 20020916;
EP 2002-807963 20020916
IC ICM **C12M001-34**; **C12M003-06**
ICS **C12N005-00**; **C12N005-02**
AB DE 10128809 A UPAB: 20030501
NOVELTY - Cell culture chamber (20) for a closed cell culture system, has a continuous feed of liquid nutrients, growth factors and gases, is new.
DETAILED DESCRIPTION - Cell culture chamber (20) for a closed cell culture system, has a continuous feed of liquid nutrients, growth factors and gases. A membrane plate (1) has a membrane (2) to hold at least one cell culture, and a number of channels (4-4') for fluid feed, gassing and sensor connections. One side of the membrane plate has a transparent glass pane (3) for observation into the interior of the culture chamber. The other side of the membrane plate has a transparent closing glass pane (6), for light to illuminate the interior of the culture chamber from a lamp. The glass panes are of sapphire glass. The membrane is a gas-permeable bio-film.
USE - The apparatus is for the culture of tissue cells, especially for the research of pharmaceutical products to treat rheumatic inflammation, cancers, circulation disorders, aids, programmed cell death, blood coagulation, etc.
ADVANTAGE - The cells being cultured are given a continuous feed of culture growth aids, without being taken out of their culture environment. They can be examined by a microscope without interruption of the gassing action.
DESCRIPTION OF DRAWING(S) - The drawing shows a schematic section through the culture chamber.
membrane plate 1
membrane 2
transparent glass panes 3,6
channels 4-4'
cell culture chamber 20
Dwg.2/4
FS CPI EPI
FA AB; GI
MC CPI: B04-F02; B11-A; B11-C09; **B12-K04E**; D05-H02; **D05-H08**; **D05-H09**; D05-H13
EPI: S03-E13D; S03-E14A1; **S03-E14H**; T01-J08A1
TECH UPTX: 20030501
TECHNOLOGY FOCUS - COMPUTING AND CONTROL - Preferred Apparatus: The cell cultivation apparatus is controlled by a computer system, which also processes the cell cultivation data.

L21 ANSWER 9 OF 16 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2003-157038** [15] WPIX
DNC C2003-040926
TI Apparatus for handling and/or treatment of cells such as follicles, oocytes and/or embryos, comprises chamber having sieve elements arranged in succession within it, connected to pump, and a microchamber arrangement.
DC B04 C06 D16
IN ABEYDEERA, L R; ANDERSON, J E; VAN DER STEEN, H
PA (PIGI-N) PIG IMPROVEMENT CO UK LTD; (ABEY-I) ABEYDEERA L R; (ANDE-I) ANDERSON J E; (VSTE-I) VAN DER STEEN H
CYC 101
PI WO 2002102969 A2 20021227 (200315)* EN 43 C12M003-06 <--
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR

KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

AU 2002302845 A1 20030102 (200452) C12M003-06 <--

EP 1461415 A2 20040929 (200463) EN C12M003-06 <--

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

US 2004234940 A1 20041125 (200478) A01N001-02

ADT WO 2002102969 A2 WO 2002-GB2792 20020618; AU 2002302845 A1 AU 2002-302845 20020618; EP 1461415 A2 EP 2002-730527 20020618, WO 2002-GB2792 20020618; US 2004234940 A1 WO 2002-GB2792 20020618, US 2004-481249 20040719

FDT AU 2002302845 A1 Based on WO 2002102969; EP 1461415 A2 Based on WO 2002102969

PRAI GB 2001-14849 20010618

IC ICM A01N001-02; **C12M003-06**

ICS **C12M001-34; C12N005-06**

AB WO2002102969 A UPAB: 20030303

NOVELTY - An apparatus (I) for handling and/or treatment of cells (e.g. follicles, oocytes and/or embryos), comprises a chamber having sieve elements (SE) arranged in succession within it, connected to pump to maintain circulatory flow of medium, where SE separate primordial or preantral follicles, or Cumulus-Oocyte-Complexes from ovarian debris and sorts follicles according to size, and a microchamber arrangement.

DETAILED DESCRIPTION - An apparatus (I) for handling and/or treatment of cells, in particular follicles (9,10), oocytes and/or embryos comprises a chamber (2) containing a number of sieve elements (3,4,5) arranged in succession within the chamber, where each successive sieve element has pores of a smaller dimension from those in the preceding sieve element, connected to a pump (12) to maintain a circulatory flow of medium, where the sieve elements separate primordial follicles, preantral follicles or Cumulus-Oocyte-Complexes (COCs) from ovarian debris (8,11) and sorts the follicles according to size, and a microchamber arrangement containing a number of microchambers, each optionally comprising one or more sieve elements.

USE - (I) is useful for separation of follicles from ovaries, growth of follicles, removal of COCs from follicles, maturation of COCs (in vitro maturation (IVM)), removal of cumulus cells from COC's, oocyte enucleation, in vitro fertilization, nuclear transfer (NT)/cloning, embryo culture, splitting embryos, sorting embryos and/or oocytes according to size, encapsulation, transport of embryos from the production facility to the site of embryo transplantation, or cell culture, where the oocytes, embryos or sperms are from mammals or aquatic species (claimed).

(I) is useful for in vitro cell culture, in particular embryo production from harvesting and growth of ovarian follicles, maturation and fertilization of oocytes up to embryo culture and transport in aquatic species and mammals, including humans.

ADVANTAGE - (I) is highly automated and robust system that utilizes microchamber technology (MCT), incorporates quality control and is very suitable for large scale embryo production. (I) enables large scale and low cost production of embryos in mammals and larvae in aquatic species. (I) provides continuous control over the follicular growth, maturation/fertilization/manipulation and culture environment of follicles, oocytes and/or embryos. It also allows for quality control enabling further processing based on size and/or other quality parameters. (I) is automated and thus standardized, which increases production and efficiency.

DESCRIPTION OF DRAWING(S) - The figure shows a vertical cross-section of an apparatus that allows enzymatic treatment and sorting of processed ovarian material into debris and different sizes of follicles and Cumulus-Oocyte-Complexes (COCs).

Chamber 2

Sieve elements 3,4,5

Ovarian debris 8,11

Follicles 9,10

Pump 12

Dwg.1/15

FS CPI
FA AB; GI; DCN
MC CPI: B04-F01; B11-B; B11-C08E1; **B12-K04E**; C04-F01; C11-B; C11-C08E1; **C12-K04E**; **D05-H08**; **D05-H09**; D05-H13
ABEX UPTX: 20030303
EXAMPLE - Oocyte maturation and cumulus expansion was examined using microdrops and microchamber technology (MCT) device with a shared volume. The maturation rate in MCT was 76% while the microdrop control was 73%.
TECH UPTX: 20030303
TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Apparatus: In (I), the microchamber arrangement further incorporates a pump that controls the recirculation of medium and/or devices to measure and/or regulate characteristics of the medium, and/or introduce spermatozoa. The characteristics are any one or more of pH, osmolarity, carbon dioxide levels and temperature. The microchamber sieve elements are adjustable, such that the pore size can be altered, or the pores can be closed. The microchamber sieve elements have pores of different dimension. The microchamber arrangement comprises a series of layers of microchambers. The sieve elements associated with each layer of microchambers form a number of sieve elements arranged in succession, where each successive sieve element has pores of a larger or smaller pore dimension than those in the preceding sieve element. The successive layers contain microchambers of decreasing dimension. The connecting walls of the microchambers contain holes to allow the flow of medium in and/or out of each individual microchamber from the sides. The microchamber arrangement is linked to an imaging unit linked to an image capture device. The imaging unit is a video camera and the image capture device is a microscope or uses ultrasound to generate a quality index based on visual assessment and other parameters such as medium pH, medium osmolarity, medium temperature, and/or oocyte/embryo metabolism. The imaging is liked to other devices that monitor characteristics such as medium pH, medium osmolarity, medium temperature, and/or oocyte/embryo metabolism to generate a quality index for each of the oocyte/embryo. The microchamber arrangement is positioned above a transfer device such as a second microchamber arrangement or straw. The microchamber arrangement further incorporates a second pump system that regulates the introduction of a small number of spermatozoa into the microchambers. The microchamber arrangement further incorporates an oocyte/embryo encapsulation unit. Each microchamber arrangement consists of two sub-chambers. The sub-chamber is formed to have dimensions equivalent to or greater than a mature oocyte.

L21 ANSWER 10 OF 16 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2002-509872** [55] WPIX
DNC C2002-145049
TI Isolation of cancer cells dispersed in body fluid, takes place in filter chamber containing flat, microporus filter with parallel flow introduction.
DC A89 B04 D16
IN GIESING, M; GRILL, H; SCHUETZ, A; UCIECHOWSKI, P
PA (GIES-I) GIESING M
CYC 1
PI DE 10054632 A1 20020529 (200255)* 9 C12M003-06 <--
ADT DE 10054632 A1 DE 2000-10054632 20001103
PRAI DE 2000-10054632 20001103
IC ICM **C12M003-06**
ICS C12M001-12; **C12M001-34**
AB DE 10054632 A UPAB: 20020829
NOVELTY - Isolation of cancer cells dispersed in body fluid comprises that the fluid is introduced through an inlet (13) of a filter casing (11, 12), to enter the inlet chamber on one side, over a flat filter (15) that has a mesh- or pore size of 10 - 200 micro m.
DETAILED DESCRIPTION - Isolation of cancer cells dispersed in body fluid comprises that the fluid is introduced through an inlet (13) of a filter casing (11, 12), to enter the inlet chamber on one side, over a flat filter (15) that has a mesh- or pore size of 10 - 200 micro m.

Distribution is parallel to the surface of the filter. The fluid is separated; the residue being retained, whilst the filtrate is collected in an outlet chamber (25) and leaves via the outlet (14) connection. The residue is recovered subsequently.

An INDEPENDENT CLAIM is also included for the corresponding filtration apparatus.

USE - To isolate dispersed cancer cells from a body fluid (claimed). Characterization, diagnosis, prognosis, therapy and/or scientific investigation follow.

ADVANTAGE - Simple automation and standardization of the process are achieved. The purity of the filtered cancer cell fraction is raised. A simple apparatus in the form of a set is proposed. Surprisingly-improved purity and yield result, from flow distribution in a more uniform manner, as described. Cells are evenly distributed over the surface of the filter, avoiding localized clumping. Dead volume in the apparatus is minimized, reducing the sample size required.

DESCRIPTION OF DRAWING(S) - A cross section through the filter is presented.

filter casing 11, 12
inlet 13
outlet 14
flat filter 15
distribution channels 18, 22
outlet chamber 25
Dwg.1/3

FS CPI
FA AB; GI; DCN
MC CPI: A99-A; B04-C03; B04-F02A; B11-B; B11-C08D3; **B12-K04**; D05-H02; **D05-H08**; **D05-H09**; D05-H10
TECH UPTX: 20020829

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - The residue is incubated in solutions containing guanidine isothiocyanate and phenol.

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Features: The flow is passed through radial channel grooves with interconnecting concentric distribution channels (18, 22). Initially, a cell-containing fraction is isolated. It is then filtered. The residue is released from the filter and then collected together. Release is by back-washing. The casing is two-piece, in plastic In the flat filter, the preferred pore or mesh size is about 20 microm. A sample holder is connected to the inlet. A set or kit is formed by the filtration unit and/or a disposable cartridge with ancillary equipment.

TECHNOLOGY FOCUS - POLYMERS - The flat filter is a nylon membrane.

L21 ANSWER 11 OF 16 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2000-072174** [06] WPIX
DNC C2000-020543
TI Microfabricated device for cell growth and cell-based assays, e.g. for secondary drug screening and determination of cellular analytes.
DC B04 D16 J04
IN THOMAS, N; ANDERSSON, P
PA (AMSH) AMERSHAM PHARMACIA BIOTECH UK LTD; (GYRO-N) GYROS AB
CYC 22
PI WO 9955827 A1 19991104 (200006)* EN 32 C12M001-20
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: CA JP US
EP 1073709 A1 20010207 (200109) EN C12M001-20
R: AT BE CH DE DK ES FI FR GB IT LI NL SE
JP 2002512783 W 20020508 (200234) 28 C12M001-20
EP 1298198 A2 20030402 (200325) EN C12M001-20
R: AT BE CH DE DK ES FI FR GB IT LI NL SE
EP 1073709 B1 20030709 (200353) EN C12M001-20
R: AT BE CH DE DK ES FI FR GB IT LI NL SE
DE 69909462 E 20030814 (200361) C12M001-20
US 6632656 B1 20031014 (200368) C12M003-06 <--

US 2004058408 A1 20040325 (200422) C12M001-34 <--
ES 2203098 T3 20040401 (200425) C12M001-20
ADT WO 9955827 A1 WO 1999-GB954 19990317; EP 1073709 A1 EP 1999-913456 19990317, WO 1999-GB954 19990317; JP 2002512783 W WO 1999-GB954 19990317, JP 2000-545973 19990317; EP 1298198 A2 Div ex EP 1999-913456 19990317, EP 2002-22306 19990317; EP 1073709 B1 EP 1999-913456 19990317, WO 1999-GB954 19990317, Related to EP 2002-22306 19990317; DE 69909462 E DE 1999-609462 19990317, EP 1999-913456 19990317, WO 1999-GB954 19990317; US 6632656 B1 WO 1999-GB954 19990317, US 2000-673169 20001117; US 2004058408 A1 Cont of WO 1999-GB954 19990317, Cont of US 2000-673169 20001117, US 2003-650412 20030828; ES 2203098 T3 EP 1999-913456 19990317
FDT EP 1073709 A1 Based on WO 9955827; JP 2002512783 W Based on WO 9955827; EP 1298198 A2 Div ex EP 1073709; EP 1073709 B1 Related to EP 1298198, Based on WO 9955827; DE 69909462 E Based on EP 1073709, Based on WO 9955827; US 6632656 B1 Based on WO 9955827; US 2004058408 A1 Cont of US 6632656; ES 2203098 T3 Based on EP 1073709
PRAI GB 1998-8836 19980427
IC ICM C12M001-20; **C12M001-34**; **C12M003-06**
ICS B01L003-00; C12Q001-18; C12Q001-20
AB WO 9955827 A UPAB: 20000203
NOVELTY - Microfabricated apparatus for performing cell-growth and cell-based assays in liquid medium has:

(i) base plate (BP) supporting many microchannel elements, each having a cell growth chamber and inlet and outlet lines for liquid samples;

(ii) cover plate (CP) positioned over BP to define the chambers and lines, with holes to provide channel access, and

(iii) chamber inserts for cell attachment and growth.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) determining the effect of a test compound on a cellular activity or physical property, using this apparatus; and

(b) method for measuring a cellular analyte, using this apparatus.

ACTIVITY - None given.

MECHANISM OF ACTION - None given.

USE - The apparatus is particularly used for:

(1) secondary screening of potential drugs (identified in primary screens);

(2) determination of cellular analytes (e.g. peptide hormones or secondary metabolites), and also for studying cell migration in resonse to physical or chemical stimuli.

ADVANTAGE - Cells, and any assay reagents, can be simultaneously delivered to many growth/assay chambers by rotation of the apparatus as appropriate speeds. The apparatus provides long-term survival of cultured cells, including adherent cells.

DESCRIPTION OF DRAWING(S) - Plan of the apparatus.

Rotatable disk 8

Sample reservoir 9

Microchaanel assay elements, containing growth chamber and smaller assay chamber 6

Waste channel 10

.

Dwg.1b/3
FS CPI
FA AB; GI; DCN
MC CPI: B04-D01; B04-E05; B04-F01; B04-G01; B04-J01; B04-N02; B04-N04; B06-F03; B11-C07A; B11-C07B; **B12-K04**; D05-H02; **D05-H09**; J04-B01
ABEX UPTX: 20000203
EXAMPLE - A sample (1 mul) containing 104 HeLa cells was added to the central opening in the apparatus and moved into the growth chambers (each 50 microns deep, 500 microns in diameter). The cells were allowed to adhere and grow, and after 48 hr examined. Morphology and density were the same as for cells grown in standard culture plates and viability was over 95%.
TECH UPTX: 20000203

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Apparatus: BP is a rotatable disk with a sample introduction port near its center, connected to an annular sample reservoir. The microchannels are dispersed radially on the disk, with the inlet channel attached to the reservoir. CP is made of gas-permeable plastic. The system for cell attachment and growth is provided by:
(a) selective treatment of modification of at least part of the surface in the chamber, or
(b) as microcarrier beads.
The chamber may also include raised, molded features on the base that form pillars; these prevent passage of cells in suspension but will allow migration of cells through. Typically the growth chamber has floor area 104-106 square micron. The cross-sectional area of the inlet channel (IC) is greater than that of the outlet channel (OC), particularly that of OC is 0.99-0.01 times that of IC. This arrangement allows controlled distribution of liquid to the chambers by rotation of the disk at a speed that generates a centrifugal force sufficient to force liquid through IC, but not OC. Subsequently, rotation at higher speed will drive liquid through OC. At least some of the channels also include one or more chambers for performing assays; these are connected in line between growth chamber and OC, and are connected by intermediate channels of cross-sectional area between that of IC and OC. One or more of the chambers may include a layer of scintillant, particularly with a binding agent (biotin, streptavidin, protein A, antibody, lectin, hormone receptor, nucleic acid probe or DNA-binding protein) bonded to it.
Preferred Process: In method (a), a sample of cells is introduced into the apparatus, the cells transferred to the growth chambers, and there treated with test compound. Any effect of the test substance is determined optically, optionally after adding appropriate assay reagents. These reagents may carry fluorescent, chemiluminescent, bioluminescent, enzymatic or radioactive labels. In method (b), cells are introduced as above, allowed to grow, then assay reagents applied for measurement of selected analytes, with optical detection.

L21 ANSWER 12 OF 16 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2000-065136** [06] WPIX
DNC C2000-018358
TI Cell culture and electrophysiological activity study device.
DC D16 J04
IN HAENNI, C; STOPPINI, L
PA (HAEN-I) HAENNI C; (BIOC-N) BIO CELL INTERFACE SA; (BIOC-N) BIO CELL-INTERFACE SA; (STOP-I) STOPPINI L
CYC 25
PI FR 2779443 A1 19991210 (200006)* 12 C12M003-06 <--
WO 9964559 A2 19991216 (200006) FR C12M000-00
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: AU CA IL JP NZ US
AU 9940279 A 19991230 (200022)
EP 1133691 A2 20010919 (200155) FR G01N033-487 <--
R: AT BE CH DE DK ES GB IT LI NL SE
JP 2002517225 W 20020618 (200242) 22 C12M003-04 <--
EP 1133691 B1 20030402 (200325) FR G01N033-487 <--
R: AT BE CH DE DK ES GB IT LI NL SE
DE 69906574 E 20030508 (200338) G01N033-487 <--
IL 140174 A 20031010 (200402) C12M001-34 <--
ES 2195572 T3 20031201 (200406) G01N033-487 <--
US 6689594 B1 20040210 (200413) C12N013-00
ADT FR 2779443 A1 FR 1998-7596 19980608; WO 9964559 A2 WO 1999-CH243 19990604; AU 9940279 A AU 1999-40279 19990604; EP 1133691 A2 EP 1999-923354 19990604, WO 1999-CH243 19990604; JP 2002517225 W WO 1999-CH243 19990604, JP 2000-553549 19990604; EP 1133691 B1 EP 1999-923354 19990604, WO 1999-CH243 19990604; DE 69906574 E DE 1999-606574 19990604, EP 1999-923354 19990604, WO 1999-CH243 19990604; IL 140174 A IL 1999-140174 19990604; ES 2195572 T3 EP 1999-923354 19990604; US 6689594 B1 WO 1999-CH243 19990604, US 2000-701956 20001205
FDT AU 9940279 A Based on WO 9964559; EP 1133691 A2 Based on WO 9964559; JP

2002517225 W Based on WO 9964559; EP 1133691 B1 Based on WO 9964559; DE 69906574 E Based on EP 1133691, Based on WO 9964559; IL 140174 A Based on WO 9964559; ES 2195572 T3 Based on EP 1133691; US 6689594 B1 Based on WO 9964559

PRAI FR 1998-7596 19980608

IC ICM C12M000-00; **C12M001-34**; **C12M003-04**; **C12M003-06**; C12N013-00; **G01N033-487**

ICS C12M001-00; **C12N005-06**; C12Q001-02; G01N027-30; G01N027-327; G01N027-40; **G01N033-483**

ICI **C12N005-06**; C12R001:91

AB FR 2779443 A UPAB: 20040324

NOVELTY - The cell culture and electrophysiological activity study device comprises electrodes (18) formed on a porous membrane (16) which supports the cells and is in contact with a nutrient liquid.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a porous synthetic membrane, on which one or more electrodes (18) are deposited.

Preferred Features: The device has a circular array (17) of electrodes, each of which has an analysis zone (19) in contact with the cells and a measuring zone (20) for connection to an electrical signal generating and/or measuring device, and has a position indexing notch (25). The membrane (16) is transparent and is held on a rigid support (11) having a nutrient liquid supply chamber (12) which communicates with liquid feed and return lines (13, 14) and which has an opening (15) communicating with the membrane. A capsule is positioned on the membrane to maintain the cells in position on the electrodes.

USE - Especially as a single-use device for culture of a cluster of cells and for study of the electrophysiological activity of the cells.

ADVANTAGE - The device is inexpensive, has few parts, permits nondestructive electrophysiological and/or microscopic analysis of cells and provides a long cell lifetime.

DESCRIPTION OF DRAWING(S) - The drawing shows a plan view of a device

Device 10

Support 11

Nutrient liquid supply chamber 12

Nutrient liquid feed and return lines 13, 14

Support opening 15

Membrane 16

Electrode array 17

Electrodes 18

Analysis zone 19

Measuring zone 20

Indexing notch 25

Dwg.1/2

FS CPI

FA AB; GI

MC CPI: D05-H02; J04-B01

L21 ANSWER 13 OF 16 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN **1999-562375** [48] WPIX

DNC C1999-164145

TI Apparatus to measure the migration potential of amoeba cells - has a vessel with the cells in a fluid and a base opening over a membrane filter with an active medium release plate for a faster measurement action.

DC B04 D16 S03

IN EGGER, G

PA (EGGE-I) EGGER G

CYC 86

PI AT 9801584 A 19990815 (199948)* 10 G01N033-483 <--

AT 406310 B 20000215 (200014) G01N033-483 <--

WO 2000017652 A1 20000330 (200024) GE G01N033-569

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW

W: AL AM AT AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA

UG US UZ VN YU ZW
AU 9944894 A 20000410 (200035) G01N033-569
US 2001004530 A1 20010621 (200137) C12M001-34 <--
EP 1116035 A1 20010718 (200142) GE G01N033-569
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
US 6350610 B2 20020226 (200220) C12M001-34 <--
AU 748439 B 20020606 (200249) G01N033-569
JP 2002525604 W 20020813 (200267) 17 G01N033-48 <--
ZA 2001000179 A 20020925 (200275) 30 G01N000-00

ADT AT 9801584 A AT 1998-1584 19980922; AT 406310 B AT 1998-1584 19980922; WO 2000017652 A1 WO 1999-AT165 19990624; AU 9944894 A AU 1999-44894 19990624; US 2001004530 A1 Cont of WO 1999-AT165 19990624, US 2001-770713 20010125; EP 1116035 A1 EP 1999-927575 19990624, WO 1999-AT165 19990624; US 6350610 B2 Cont of WO 1999-AT165 19990624, US 2001-770713 20010125; AU 748439 B AU 1999-44894 19990624; JP 2002525604 W WO 1999-AT165 19990624, JP 2000-571262 19990624; ZA 2001000179 A ZA 2001-179 20010108

FDT AT 406310 B Previous Publ. AT 9801584; AU 9944894 A Based on WO 2000017652; EP 1116035 A1 Based on WO 2000017652; AU 748439 B Previous Publ. AU 9944894, Based on WO 2000017652; JP 2002525604 W Based on WO 2000017652

PRAI AT 1998-1584 19980922

IC ICM **C12M001-34**; G01N000-00; **G01N033-48**; **G01N033-483**; G01N033-569
ICS B01L003-00; **C12M003-00**; **C12M003-06**; C12Q001-00; G01N033-15; **G01N033-49**; **G01N033-50**

AB AT 9801584 A UPAB: 19991201

NOVELTY - The apparatus to measure the migration potential of moving amoeba cells has an active medium release plate (2) with a membrane filter (3), and at least one vessel (5) with a base opening on it containing the fluid (6) with moving amoeba cells (7). The vessel base opening lies on the membrane filter (3), and the membrane filter (3) surface is at least 1.6 times the surface area of the base opening.

DETAILED DESCRIPTION - At least one active medium release plate (2) is bonded by an adhesive (4) to the membrane filter (3), where the total adhesive surface area is, at most, 30% of the facing surfaces of the plate (2) and filter (3). The release plate (2) surface generally equals the surface area of the base of the vessel (5). The release plate (2), membrane filter (3) and the vessel (5) are supported by a transparent or translucent carrier plate (1). The release plate (2) and membrane filter (3) are of a transparent material, or which has a variable transparency. The membrane filter is a rectangular plate, with a number of active medium release plates bonded by an adhesive at its under side. Groups of vessels are on it, linked together by straps, with groups in rows. The vessels are held by an adhesive to the membrane filter.

USE - For the study of the migration potential of amoeba cells, in theoretical and applied medicine and the application to human medicine. The cell movement is examined together with an active medium which may encourage or restrain cell migration.

ADVANTAGE - The apparatus accelerates the migration action, which simplifies the execution of measurement series.

DESCRIPTION OF DRAWING - The drawing shows a vertical section of the apparatus (1) carrier plate; (2) active medium release plate; (3) membrane filter; (4) adhesive; (5) vessel; (6) fluid; (7) cells.

Dwg.1/2

FS CPI EPI
FA AB; GI
MC CPI: B04-F06; B11-C08; **B12-K04E**; **D05-H09**
EPI: **S03-E14H**; **S03-E14H1**

L21 ANSWER 14 OF 16 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **1998-497186** [43] WPIX
DNN N1998-388346 DNC C1998-149846
TI Portable blood cell separation apparatus - has separation and cultivation stages in downstream succession for rapid analysis and detection of cancer cells in the bloodstream.

DC B04 D16 S03
IN KUEBLER, U
PA (KUEB-N) KUEBLER GMBH
CYC 20
PI DE 29708743 U1 19980917 (199843)* 23 C12M003-00 <--
WO 9853314 A1 19981126 (199902) GE G01N033-48 <--
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: JP US
DE 29823979 U1 20000316 (200021) C12M001-34 <--
ADT DE 29708743 U1 DE 1997-2008743 19970516; WO 9853314 A1 WO 1998-DE1362 19980516; DE 29823979 U1 DE 1998-2023979 19980516, Application no. WO 1998-DE1362 19980516
PRAI DE 1997-29708743 19970516
IC ICM **C12M001-34**; **C12M003-00**; **G01N033-48**
ICS A61B010-00; **C12M003-06**; C12Q001-02; **C12Q001-04**; C12Q001-24
AB DE 29708743 U UPAB: 19981028
The portable apparatus to separate cancerous cells, carried in the bloodstream, has a number of stages in a continuous downstream array and in succession. An initial separation stage enriches and separates the leukocyte fraction, the leukocytes and the altered cells from the blood, each with a feed and removal system. The leukocyte fraction is transferred to a second separation stage, to separate the altered cells from the leukocytes, each with a feed and removal, and the separated altered cells are transferred to a cell cultivation stage, also with feed and removal arrangements.
USE - The apparatus is for the detection of cancer cells circulating in the bloodstream, for early detection of breast cancer and other carcinogens.
ADVANTAGE - The apparatus is small and compact, for a simple and rapid analysis of blood samples containing cells which have been modified by a cancer condition in the body, without the need for a large volume blood sample. The apparatus can also be a disposable appliance.
Dwg.1/1
FS CPI EPI
FA AB; GI
MC CPI: B04-B04D5; B04-B04K; B11-B; B11-C08D3; B12-K04A1; **D05-H09**; D05-H13
EPI: **S03-E14H**

L21 ANSWER 15 OF 16 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **1993-054530** [07] WPIX
DNC C1993-024369
TI Sterile sampling of pressurised liquids for microbiological analysis - using filter membrane mounted in disposable clear plastic casing.
DC A89 B04 D13 D16 J04
IN LEMONNIER, J
PA (MIFI) MILLIPORE SA; (MIFI) MILLIPORE CORP
CYC 8
PI FR 2677664 A1 19921218 (199307)* 27 C12M001-20
EP 536004 A1 19930407 (199314) EN 27 C12M001-34 <--
R: CH DE FR GB IT LI
US 5288638 A 19940222 (199408) 15 B01D029-00
JP 06141890 A 19940524 (199425) 9 C12Q001-06
EP 536004 B1 19970402 (199718) EN 18 C12M001-34 <--
R: CH DE FR GB IT LI
DE 69218714 E 19970507 (199724) C12M001-34 <--
JP 3130132 B2 20010131 (200109) 9 C12M001-34 <--
ADT FR 2677664 A1 FR 1991-7232 19910613; EP 536004 A1 EP 1992-401582 19920609; US 5288638 A US 1992-895291 19920608; JP 06141890 A JP 1992-175903 19920611; EP 536004 B1 EP 1992-401582 19920609; DE 69218714 E DE 1992-618714 19920609, EP 1992-401582 19920609; JP 3130132 B2 JP 1992-175903 19920611
FDT DE 69218714 E Based on EP 536004; JP 3130132 B2 Previous Publ. JP 06141890
PRAI FR 1991-7232 19910613
REP No-SR.Pub; DE 839245; EP 122581; EP 180165; EP 307048; US 4670398

IC ICM B01D029-00; C12M001-20; **C12M001-34**; C12Q001-06
ICS C12M001-12; **C12M003-00**; **C12M003-06**; C12Q001-22; C12Q001-24

AB FR 2677664 A UPAB: 19931119
A liquid sample is analysed for microbiological contamination by passing through a filter membrane. The membrane is mounted in a plastic casing, with a liquid reservoir on its upstream side. The downstream part of the casing is threaded to allow attachment of a filter support. The filter support has a series of drainage canals leading to an axial opening for removal of filtered liquid. Liquid is forced through the filter by pressure on the upstream side, or by a vacuum drawn downstream. After filtration of the sample the filter support is removed and replaced by a container of liquid or solid culture media. The assembly is inverted and incubated.
USE/ADVANTAGE - Microbiological analysis of pressurised liqs. contained in vessels or circulating in pipework. Applicable in the food, pharmaceutical or electronic industries. All parts of the sampling and culture device are supplied sterile and are designed for one use. It is simple to use and external contamination is avoided.
1/15
Dwg.1/15

FS CPI

FA AB; DCN

MC CPI: A12-L04; A12-W11A; B04-B02B; B04-C02A1; B04-C03B; B11-C08C; B11-C08E1; **B12-K04**; **D05-H09**; J04-B01

ABEQ US 5288638 A UPAB: 19940407
A device for microbiological testing of a pressurised liquid sample comprises a closed transparent plastic container with a single-use presterilised membrane filter sealed at the container base, and a liquid inlet orifice in the container adjacent the filter upstream surface and closed by a removable plug. The container has a built-in reading window adjacent the filter upstream surface and a flange with a lip seal and female threaded part adjacent to its downstream surface. The plastic is pref. a copolymer of methylmethacrylate, butadiene and styrene, and the filter has a polystyrene support.
USE/ADVANTAGE - For checking fluid quality in the food, pharmaceutical and electronics industries. Permits simpler filtration and culturing in a single-use unit to minimise the occurrence of false positives.
Dwg.0/17

ABEQ EP 536004 B UPAB: 19970502
Device for the microbiological testing of a pressurised liq. sample using a filter membrane, pref. presterilised and for single use only, and comprising upstream from the filter membrane (4), a liq. inlet in the form of an orifice (5) which can be closed by a removable plug (6), characterised in that it comprises a completely closed container (1) of transparent plastic, at the base of which a filter membrane (4) is sealed, the container being fitted, upstream from the membrane, with a built-in reading window (13) and downstream from the membrane with a flange (7) comprising a lip seal (10) and a female threaded part (8).
Dwg.1/17

L21 ANSWER 16 OF 16 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN **1992-017628** [03] WPIX

DNC C1992-007606

TI Measurement of number of living microorganisms in specimen - by seizing microorganisms on hydrophobic poly-fluoroethylene filter, washing excess colouring and determn. of number.

DC A35 A89 B04 D13 D15 D16 H08

IN KAWANE, F; SATO, M

PA (IDEK) IDEMITSU KOSAN CO LTD

CYC 6

PI EP 465987 A 19920115 (199203)*
R: DE FR GB IT
JP 04218392 A 19920807 (199238) 14 C12Q001-06
EP 465987 A3 19930512 (199402)
JP 07028758 B2 19950405 (199518) 7 C12Q001-06

US 5403720 A 19950404 (199519) 7 B01D061-14
EP 465987 B1 19960327 (199617) EN 9 C12Q001-06
R: DE FR GB IT
DE 69118255 E 19960502 (199623) C12Q001-06
ADT EP 465987 A EP 1991-110913 19910702; JP 04218392 A JP 1991-27636 19910130; EP 465987 A3 EP 1991-110913 19910702; JP 07028758 B2 JP 1991-27636 19910130; US 5403720 A Cont of US 1991-723924 19910701, US 1993-162790 19931206; EP 465987 B1 EP 1991-110913 19910702; DE 69118255 E DE 1991-618255 19910702, EP 1991-110913 19910702
FDT JP 07028758 B2 Based on JP 04218392; DE 69118255 E Based on EP 465987
PRAI JP 1990-181667 19900711; JP 1991-27636 19910130
REP NoSR.Pub; 2.Jnl.Ref; JP 02286098; US 4333337; JP 2286098
IC ICM B01D061-14; C12Q001-06
ICS **C12M001-34**; **C12M003-06**; **C12N001-02**
AB EP 465987 A UPAB: 19931006
Method comprises seizing the microorganisms on a hydrophobic filter after the dyeing or alternatively dyeing the microorganisms after seizing them on the filter, removing excessive colouring matter by washing, and determining the number of the microorganisms from the deg. of their colouration.

Also claimed is a kit for measuring the number of living microorganisms.

The colouring matter attaching onto the microorganisms is pref. eluted with an organic solvent and the degree of colouration of the elute is determined by colourimetry based on optical density measured. The colouring matter is fuchsine or safranine and the concentration of the colouring matter in solution is 0.0005-2%.

USE/ADVANTAGE - The process enables measurement of the number of living microorganisms in a specimen, rapidly and conveniently and without the use of special equipment. The measurement is carried out within 10 mins.. The kit can be utilised in a wide variety of fields including metal working, paints, foodstuffs etc.. The bacteria is aerobic bacteria.
0/2
FS CPI
FA AB; DCN
MC CPI: A12-L04; A12-W11A; A12-W11L; B04-B02B; B04-C03B; B06-D14; B10-A20; B11-C02; B11-C07B1; B11-C08D3; **B12-K04E**; D03-K03; D04-A01H; **D05-H09**; H08-D04; H08-D07
ABEQ US 5403720 A UPAB: 19950524
Number of fungi, yeast or bacteria in a specimen is measured by (A) either dyeing the microorganisms with a 0.0005-2% soln. of a water soluble colour and entrapping the dyed organisms on a hydrophobic filter made of PTFE or entrapping the organisms on the filter and dyeing them, (B) washing out excess colour with water or a buffer soln. at pH 6-8 either contg. 0.0001-1% surfactant and (C) determining the number of microorganisms by the degree of colour.

The colour attached to the microorganisms is pref. washed out and the optical density of the eluate is measured colorimetrically and compared with a calibration curve. The dye is fuchsin or safranine and the microorganisms are aerobic bacteria.

USE/ADVANTAGE - Used to determine the number of microorganisms in water, liq. flavourings, liquid foods, paints, esp. metal working fluids. A simpler and faster method than known ones requiring relatively compact equipment.
Dwg.0/2
ABEQ EP 465987 B UPAB: 19960428
A method for measuring the number of living microorganisms in a specimen which comprises seizing the microorganisms on a hydrophobic filter after the dyeing thereof with a colouring matter solution, or alternatively dyeing the microorganisms after seizing them on the hydrophobic filter, removing excessive colouring matter by washing with a cleaning solution, and then determining the number of the microorganisms from the degree of coloration thereof, characterized in that the colouring matter attaching onto the microorganisms is eluted with an organic solvent and the degree of coloration of the elute is determined by colorimetry based on the optical density measured.

Dwg.0/2

```
=> b home
FILE 'HOME' ENTERED AT 13:37:46 ON 14 OCT 2005

=>
```